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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,120	06/17/2005	Donald G. Wind	160-P-1588USWO	3747
23322	7590	11/15/2007	EXAMINER	
IPLM GROUP, P.A. POST OFFICE BOX 18455 MINNEAPOLIS, MN 55418			MATOCHIK, THOMAS L	
			ART UNIT	PAPER NUMBER
			1796	
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			11/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/522,120	Applicant(s) WIND ET AL.	
	Examiner Thomas Matochik	Art Unit <u>4134</u> 7709	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/10/2005</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10, 19-31 and 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et.al (US 4,649,175) in view of Yezrielev et.al (US 5,817,722).

**Regarding claims 1, 5-6, 9, 31, 39, 40:** Inoue teaches an alkyd resin coating composition comprising a reaction product of a polyester and a fatty acid using a crosslinking agent (Col. 1, lines 64-68 and col. 2, lines 1-4).

Inoue is silent as to the molecular weight and polydispersity of the resin. However, Yezrielev teaches a polyesterdiol preparation having a narrow molecular weight distribution of  $< 1.4$  (col. 4, lines 15-30). Inoue does not specify residual volatile levels. However, Yezrielev teaches a process that produces a polyesterdiol having a volatiles level of  $< 4$  weight percent (col. 4, lines 45-49). Inoue does not specify molecular weights. However, Yezrielev teaches a polyester polyol structure (col 4, line 18) where  $R = \text{hexyl}$ ,  $R_1 = \text{terephthalic acid}$  and  $n=2$ . This compound has a molecular weight of about 604. Inoue does not specify viscosity or solids content. However, Yezrielev teaches a process that produces a polyesterdiol having a viscosity  $< 3500$  cps col. 10, lines 16-18) and  $>96$  wt, % solids (col. 10, lines 11-15). Inoue and Yezrielev are analogous art since they both are from the same field of endeavor, namely polyester

and alkyd resin synthesis. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the process of Yezrielev for synthesizing polyesterpoylols in the alkyd composition of Inoue to produce alkyd resins with a high solids content and low volatiles.

**Regarding claims 24 and 26-28:** Inoue is silent as to a sulfonic acid catalyst, reactive diluent, waxes and flow control agents. However, Yezrielev teaches a reactive epoxy compound (col. 9, lines 56-61), a p-toluenesulfonic acid catalyst (col. 8, lines 63-67) and other additives common to paint formulations such as silicone and fluorocarbon flow control agents and the like (col. 14, lines 56-61). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the process of Yezrielev for synthesizing polyesterpoylols in the alkyd composition of Inoue to produce alkyd resins with a high solids content, low volatiles and low acid numbers.

**Regarding claims 2-4 and 29-30:** Inoue teaches curing by baking the coating at temperatures between 100-200°C (col. 5, lines 47-49). Inoue does not expressly teach color values or flexibility measurements. However, these properties would be inherent in the composition as claimed. The Office recognizes that all of the claimed effects and physical properties are not positively stated by the reference. Note however, that the reference teaches all of the claimed ingredients, process steps and process conditions and thus, the claimed effects and physical properties would implicitly be achieved by carrying out the disclosed process. If it is the applicants position that this would not be the case: (1) evidence would need to be presented to support applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure in

that there is no teaching as to how to obtain the claimed properties and effects by carrying out only these steps.

**Regarding claims 7-8:** Inoue teaches the coating composition contains 60%-90% by weight of the alkyd resin (col. 5, line 4).

**Regarding claim 10:** Inoue teaches the percent solids in the coating composition is about 50% (col. 6, lines 45-46).

**Regarding claims 19-20 and 38:** Inoue teaches the alkyd resin having an acid number between 0.1 and 30 (col. 4, line 33).

**Regarding claims 21-23:** Inoue teaches the composition having a melamine formaldehyde resin crosslinker (col. 4, line 53) at a level between 5% and 40% by weight of the composition (col. 4, lines 6 and 7).

**Regarding claim 25:** Inoue teaches the solvents are xylene, alcohols and ketones (col. 5, lines 15-25).

**Regarding claim 41:** Inoue teaches a metal substrate coated with the alkyd resin composition (col. 7 lines 16-20).

Claims 11-18 and 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et.al (US 4,649,175) in view of Yezrielev et.al (US 5,817,722) as applied to 1-10, 19-31 and 32-37 above, and further evidenced by coconutoil-online/FAQ.html.

**Regarding claims 11-18 and 32-37:** Inoue teaches the polyester components of the composition are terephthalic acid, phthalic anhydride or mixtures thereof (col. 3, lines

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10-20), the polyol components of the composition are neopentyl alcohol, trimethylol propane or mixtures thereof (col. 3, lines 43-51), the fatty acid component is naturally occurring and (col. 3, lines 55-68), naturally occurring fatty acids typically are mixtures of several fatty acids evidenced by [coconutoil-online.com/FAQs.html](http://coconutoil-online.com/FAQs.html). Fatty acids can be purified to a single species by chromatography or crystallization. Alternatively, highly purified (>99%) saturated fatty acids can be purchased from a number of vendors.

Typical data are shown below for the saturated fatty acid content of coconut oil (col. 3, line 63):

Typical fatty acid composition as follows : (analysis done by HPLC (High Performance Liquid Chromatography), an average of 5 consecutive production runs)

C8	.....	8.86	(Caprylic)
C10	.....	6.17	(Capric)
C12	.....	<b>48.83</b>	<b>(Lauric)</b>
C14	.....	19.97	(Myristic)
C15	.....	Traces	(0.01)
C16	.....	7.84	(Palmitic)
C18	.....	3.06	(Stearic)
C18:2	....	0.76	
C18:1	.....	4.44	
C20	.....	0.05	(Arachidic)

### ***Correspondence***

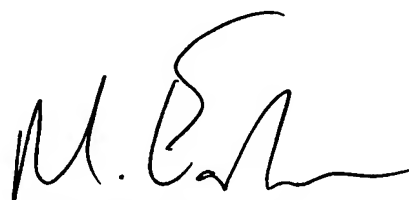
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Matochik whose telephone number is 571-270-3291. The examiner can normally be reached on Monday-Friday 7:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TLM  
10/09/2007

  
MARK EASHOO, PH.D.  
SUPERVISORY PATENT EXAMINER

13/Nov/07